

## I. AMENDMENTS

### Listing of the Claims:

The following Listing of Claims replaces all prior versions of the Claims.

1. (Currently Amended) A method for prophylaxis or treating Sinusoidal Obstruction Syndrome in a human patient in need thereof, comprising administering an effective amount of a matrix metalloproteinase-inhibitor that inhibits up-regulation of MMP-9 and/or MMP-2 isoenzymes.

2. (Currently Amended) A method for prophylaxis or treating chemotherapy- or radiation-induced liver disease in a human patient in need thereof, comprising administering an effective amount of a matrix metalloproteinase inhibitor that inhibits up-regulation of MMP9- and/or MMP-2 isoenzymes.

3. (Previously Amended) The method of claim 2, wherein said chemotherapy-induced liver disease includes Sinusoidal Obstruction Syndrome, nodular regenerative hyperplasia peliosis hepatic, immunosuppression-induced hepatic venoocclusive disease, and sinusoidal dilatation.

4. (Currently Amended) A method for prophylaxis or treating Sinusoidal Obstruction Syndrome in a human patient in need thereof, comprising administering an effective amount of a matrix metalloproteinase inhibitor, wherein said matrix metalloproteinase inhibitor is doxycycline or 2-[1(4-biphenylsulfonyl)amino]-3-phenyl-propionic acid 2-[(4-biphenylsulfonyl)amino]-3-phenyl-propionic acid .

5. (Previously Amended) The method of claim 4 or 20, wherein said matrix metalloproteinase inhibitor is doxycycline.

6. (Previously Amended) The method of claim 5 wherein 15 mg/kg of said doxycycline is administered twice daily.

7. (Currently Amended) The method of claim 4 or 20, wherein said matrix metalloproteinase inhibitor is 2-[1(4-biphenylsulfonyl)amino]-3-phenyl-propionic acid 2-[(4-biphenylsulfonyl)amino]-3-phenyl-propionic acid .

8. (Currently Amended) The method of claim 7 wherein 100-200  $\mu$ g/hour of said ~~2-[1(4-bisphenylsulfonyl)amino]-3-phenyl-propionic acid~~ 2-[(4-biphenylsulfonyl)amino]-3-phenyl-propionic acid is administered.

9. (Previously Amended) The method of claim 4 or 20, wherein said matrix metalloproteinase inhibitor is administered for up to 4 weeks.

10. (Previously Amended) The method of claim 4 or 20, wherein said matrix metalloproteinase inhibitor is Marimastat, Prinomastat, RS-130,830, (N-hydroxy-2(R)-[[4-methoxysulfonyl](3-picolyl) amino]-3-methylbutamide hydrochloride) monohydrate, Solimastat, BAY 12-9566, (3(R)(cyclopentylmethyl)-2(R)-[(3,4,4-trimethyl-2,5-dioxo-1-imidazolidinyl)methyl]-4-oxo-4-piperidinobutyrohydroxamic acid), BMS-272591, Ilomastat, D2163, Metastat, Neovastat, or Periostat.

11. (Previously Amended) A method for prophylaxis or treating chemotherapy or radiation induced liver disease in a patient in need thereof comprising administering an effective dose of a matrix metalloproteinase inhibitor selected from doxycycline or 2-[(4-biphenylsulfonyl)amino]-3-phenyl-propionic acid.

12. (Previously Amended) The method of claim 11, wherein said matrix metalloproteinase inhibitor is doxycycline.

13. (Previously Amended) The method of claim 12, wherein 15 mg/kg of said doxycycline is administered twice daily.

14. (Currently Amended) The method of claim 11, wherein said matrix metalloproteinase inhibitor is ~~2-[1(4-bisphenylsulfonyl)amino]-3-phenyl-propionic acid~~ 2-[(4-biphenylsulfonyl)amino]-3-phenyl-propionic acid.

15. (Currently Amended) The method of claim 14, wherein 100-200  $\mu$ g/hour of said ~~2-[1(4-bisphenylsulfonyl)amino]-3-phenyl-propionic acid~~ 2-[(4-biphenylsulfonyl)amino]-3-phenyl-propionic acid is administered.

16. (Previously Amended) A method for prophylaxis or treating chemotherapy or radiation induced liver disease in a patient in need thereof comprising administering 15 mg/kg of doxycycline twice daily.

17. (Previously Amended) A method for prophylaxis or treating chemotherapy or radiation induced liver disease in a patient in need thereof, comprising administering 100-200  $\mu$ g/hour of ~~2-[1(4-bisphenylsulfonyl)amino]-3-phenyl-propionic acid~~ 2-[(4-biphenylsulfonyl)amino]-3-phenyl-propionic acid.

18. (Canceled).

19. (Canceled).

20. (Currently Amended) A method for supporting liver function in a ~~prophylaxis or treating patient undergoing~~ chemotherapy- or radiation ~~treatment-induced~~ liver disease in a human patient in need thereof, comprising administering an effective amount of a matrix metalloproteinase inhibitor to said patient wherein said matrix metalloproteinase inhibitor is doxycycline or ~~2-[1(4-bisphenylsulfonyl)amino]-3-phenyl-propionic acid~~ 2-[(4-biphenylsulfonyl)amino]-3-phenyl-propionic acid.